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MUNTERS: FOCUS ON CUSTOMER SUCCESS, PEOPLE & SUSTAINABILITY

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Craig MacFadyen of Munters explores how a customer-centric and people-led strategy is crafting the future of data centres to be more sustainable

> ata centres have become the invisible backbone of modern society, powering nearly every aspect of our digital lives. These facilities

house vast networks of servers and equipment that enable essential services – emergency services, supply chain management, government operations, online banking, healthcare systems, e-commerce, social media and much more.

They enable remote work, online education and digital entertainment, as well as playing a crucial role in advancing technologies such as artificial intelligence (AI), machine learning and big data analytics, driving innovation across industries.

Craig MacFadyen, the Director of Offer Strategy and Portfolio Management at Munters, has nearly 30 years of experience in HVAC and has worked in data centres since 2015.

Whilst studying to be an electrical engineer, his career began somewhat unexpectedly in the HVAC sector, leading to a long tenure at Fläkt Woods AB before joining Munters.





"I BELIEVE THE DATA CENTRE INDUSTRY HAS SUSTAINABILITY FAR MORE IN ITS FORETHOUGHT THAN ANY OTHER INDUSTRY ON THE PLANET"

CRAIG MACFADYEN DIRECTOR OF OFFER STRATEGY AND PORTFOLIO MANAGEMENT, MUNTERS

Development of the sector over the past 15 years

Data centres date back to the 1940s, although the technology of 80 years ago is barely comparable to today's machines.

"When I started in the sector nine years ago a two megawatt hall was very large – and unusual – and now we have 90 to 300 megawatt campuses," shares Craig, reflecting on the development of data centres.

"The numbers are just unbelievable, and way beyond what we expected," he says.

"The growth of the data centre industry has been abnormal compared to other industries. But of course we're grasping it and going for it – it is an amazing place and I feel very lucky to be in it."

Meet Munters

Headquartered in Sweden, Munters operates within three different business areas:

- AirTech, which provides energyefficient air treatment for industrial applications through climate solutions, components and services for processes that require precise control of humidity and temperature.
- Data Center Technologies, which creates advanced sustainable climate solutions for cooling data centres.
- FoodTech, which focuses on energyefficient climate systems for livestock farming and greenhouses, as well as optimisation software for the food production value chain.

"Our mission is for customer success and a healthier planet. We provide sustainable solutions to create an optimal climate for a process, whether that process is a data centre, a battery technology manufacturing facility, clean rooms, food storage freezers or people," Craig explains.

As part of the strategy and portfolio management team, Craig links the sales and the research and development teams. Within his role, he collates the information he gets from customers, clients, trade shows, webinars and the media to ensure that Munters is collaborating within its different departments to create an aligned strategy and operate at the pinnacle of the sector.

CRAIG MACFADYEN

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TITLE: DIRECTOR OF OFFER STRATEGY AND PORTFOLIO MANAGEMENT

Craig MacFadyen, the Director of Offer Strategy and Portfolio Management at Munters Data Centre Technologies, has over 30 years of experience in HVAC and has worked in data centres since 2015. Whilst studying to be an electrical engineer, his career began somewhat unexpectedly in the HVAC sector, leading to a long tenure at Fläkt Woods AB before joining Munters.

In his current role, Craig is part of a team shaping Munters' strategic direction and product offerings in the rapidly evolving data centre cooling industry. Today, Munters has a comprehensive portfolio of cooling solutions that cater to the diverse needs of data centre operators worldwide.

"IT'S ALL ABOUT GROWTH"

CRAIG MACFADYEN DIRECTOR OF OFFER STRATEGY AND PORTFOLIO MANAGEMENT, MUNTERS

"We can bring products to market in under a year now, whereas normally it would be two or three years," Craig says. "That is possible because we deal with the customer during that development – they're part of the R&D process. We think we're unique in the way it works, but it also seems very successful."

Craig strongly believes that collaboration is an asset to the data centre industry, a belief that is reflected in Munters' processes.

Staying ahead of the competition

The collaborative approach helps Munters to perform at the peak of the sector.

"We listen to everything," says Craig. "Through dealing with the people who are operating these data centres on a day-to-day basis we get real insight to learn from.

It's important to make sure that we're listening, not just hearing, so that we can understand what the actual requirements are in the halls and then design something at a fast enough pace to keep up with market demand."

The challenge arising here is the unprecedented speed at which the market is developing.



"We're seeing a bit of hesitation going on because no one's got a great deal of experience on this change to liquid cooling," Craig shares. "Most people are having to second guess what they need. But when you listen to the people who are actually operating and running the data centres, you get a good feeling of what's really required. From there you just hope that innovation keeps you ahead of the curve."

Prioritising people and partnerships

The data centre side of Munters' business sits in the middle of the company's three sectors in terms of size, but is the fastest growing.



In comparison with its competitors, Munters works slightly differently. "We have a strategy and portfolio management department, in which our role is to offer a link between the market, sales and R&D," Craig shares.

This includes being on top of micro and macros trends, partly through the strong connection with the company's customers.

"We are very proud of the way we go to market, and we are very proud of the people that work for us because I think it's the people that differentiate us. Of course we've got some differentiated products and solutions, but actually it's the people and the way we apply our experience that sets Munters apart from competitors."

Craig highlights three key benefits to the Munters strategy of prioritising people:

- Technical working with design teams to provide the most suitable solution taking into account customer feedback means that the final system will be the best it can be for day-to -day operations.
- Business happy customers and good sales ensure that Munters is staying at the forefront of the industry.



WATCH NOW

Meet Craig MacFadyen Director of Offer Strategy and Portfolio Management Business Area Data Center Technologies at Munters



 Customer – consistent customer satisfaction means that not only will they be returning customers, but also that they will contribute to the conversation and ensure that further innovation is successful.

Increasing focus on sustainability

Craig sees two parts to Munters' sustainability – the company itself and the industry heritage.

Munters has a strong history of prioritising efficiency and sustainability – "that's always been the way we are," Craig remarks. "Historically, we've kind of been a niche player in the data centre market because we've been predominantly doing direct evaporative cooling or indirective evaporativ cooling for more than 20 years. Using that evaporative media has been one of our strengths – we didn't have traditional heat rejection products in our portfolio."

As attention turns to the high water usage of these systems, they are being used less – so Munters is innovating.

"Sustainability and energy efficiency go hand in hand," Craig says. "We've always been very good on the efficiency side. We've always had very low energy using products."

"We are in a fantastic industry with regards to sustainability," Craig says of the other aspect, industry heritage. "I believe we have sustainability far more in our forethought than any other industry on the planet.

"We're driven by the hyperscalers leading the way by striving for 100% renewable energy use with targets to be

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net zero or carbon negative and they lead the way. As an industry we've all got that mindset."

Cutting corners is not an option for an industry that has so many eyes on its efficiency – but Munters is a company with a history of prioritising efficiency.

Managing increasing regulation

Data centre regulation is evolving rapidly, with sustainability and energy efficiency at the forefront of new legislation. As the industry grapples with increasing scrutiny, operators are finding themselves at the cutting edge of environmental practices, often outpacing other sectors in their efforts to reduce carbon footprints.

The European Union (EU) has been particularly active in this space, with Germany leading the charge by implementing stringent Power Usage Effectiveness (PUE) requirements for data centres. This push for efficiency is coupled with legislation mandating energy reuse, a move that has been widely welcomed within the sector. "In Germany, PUE levels for design have to be quite low, which is great for us," says Craig. "They're legislating that you have to have a certain percentage available for heat reuse – it's the right thing to do."

However, the implementation of such regulations is not without its challenges. "What needs to happen is probably better planning throughout all authorities and throughout all countries, so that they build facilities that can use the energy that data centres are producing," Craig explains. One area of concern for the industry is the potential ban on certain refrigerants, particularly those with low Global Warming Potential (GWP). Craig has reservations about this approach, "I understand the mentality of it, but you have to balance the benefits of these low GWP refrigerants against the risks."

The debate around refrigerants highlights the complex balancing act regulators face. While aiming to reduce environmental impact, they must also consider the practicalities and safety implications of alternatives.

As the industry continues to navigate these regulatory waters, the overarching goal of carbon neutrality remains paramount. "I think what's going to affect most of us is carbon neutrality," Craig says. This focus on sustainability is likely to shape the future of data centre design and operation for years to come, with regulations serving as both a challenge and a catalyst for innovation in the sector.

The future of data centres

Whilst Munters' data centre business is already on a growth trajectory, there are no signs of it stopping soon – or the wider industry growth.

"It's all about growth," Craig concludes. "We've built factories to increase our capacity in Munters and we just expect to fill those factories.

"We're in the data centre industry, which is an incredible industry for growth, and it's a wave that we're excited to ride." •



